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CLAIMS:

1. An isolated protein which has a molecular weight of about 55 kDa and an amino acid sequence which includes one or more of the following:
- 5 (a) SEQ ID NO. 1
- (b) SEQ ID NO. 2
- (c) SEQ ID NO. 3
- (d) SEQ ID NO. 4
- (e) SEQ ID NO. 5
- 10 or an active fragment thereof.
2. An isolated protein which comprises the amino acid sequence of SEQ ID NO. 7, or an active fragment thereof.
3. An isolated protein which is obtainable from the haemolymph of *Perna canaliculus* which has an apparent molecular weight of 75 kDa determined by PAGE, or an active fragment thereof.
- 15 4. A protein or fragment as claimed in any one of claims 1 to 3 which has activity as:
- (i) a serine protease inhibitor; or
- (ii) a divalent cation binding agent.
- 20 5. A protein or fragment as claimed in claim 4 which has activity as a serine protease inhibitor.
6. A protein or fragment as claimed in claim 4 which has activity as a divalent cation binding agent.
7. A protein which is a functionally equivalent variant of a protein or fragment as claimed in 5 or 6.
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8. A protein which is obtainable from a shellfish other than *Perna canaliculus* and which is a functionally equivalent homologue of a protein or fragment as claimed in claim 5 or 6.
9. A polynucleotide encoding a protein or fragment as claimed in any one of claims 1 to 8.
10. A polynucleotide as claimed in claim 9 which comprises the nucleotide sequence of SEQ ID NO. 6 or a variant thereof.
11. A polynucleotide which has the nucleotide sequence of SEQ ID NO. 8.
12. A vector which includes a polynucleotide as claimed in any one of claims 9 to 11.
13. A host cell which expresses a polynucleotide as claimed in any one of claims 9 to 11.
14. A composition which comprises a protein or fragment as claimed in any one of claims 1 to 8.
15. A composition as claimed in claim 14 which is a medicament.
16. A composition as claimed in claim 14 which is a food.
17. A composition as claimed in claim 14 which is a dietary supplement.
18. A dietary supplement as claimed in claim 17 in which said protein or fragment is associated with or bound to at least one divalent cation of dietary significance.
19. A dietary supplement as claimed in claim 18 wherein said divalent metal cation is calcium, magnesium or zinc.
20. A composition as claimed in claim 14 which is a bioremediation agent.
21. A process for obtaining a protein as claimed in claim 3 which comprises the step of centrifuging material containing *Perna canaliculus* haemolymph or an extract thereof and recovering the sedimented protein.

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22. A process as claimed in claim 21 wherein said centrifuging step is ultracentrifugation.
23. A process as claimed in claim 22 wherein said ultracentrifugation is performed for about 40 minutes at about 250,000g.
- 5 24. A process as claimed in any one of claims 21 to 23 which includes the preliminary step of extracting haemolymph from *Perna canaliculus*.

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